BASIC RESEARCH GRANT PROGRAM GUIDELINES

INTRODUCTION

The Arkansas Science & Technology Authority is empowered by the Arkansas Legislature to encourage, establish, and support both basic and applied research in science and technology in the state's colleges and universities.

The following guidelines address only proposals for the Authority's Basic Research Grant Program. The Authority is governed by a Board of Directors that awards grants to qualified faculty applicants to conduct research investigations. Through these grants, the Board seeks to encourage and support scientific areas that contribute to the economic development of the state.

BASIC RESEARCH GRANTS

The Basic Research Grants program will fund original, innovative investigations for the advancement of scientific or technological knowledge. The Authority's goal is to promote and support excellence in science at four levels:

1. Scientists who are on the verge of becoming nationally competitive with funding to enhance their opportunity for national recognition.

2. Young scientists with funding to initiate research programs.

3. Scientists previously successful in obtaining funding in one area must present innovative projects or technologies for funding in different areas of research.

4. Scientists not previously supported with funding to initiate a research program.

Investigative proposals should be well written, defined, and consistent with the mission and goals of the Authority. Forty percent of the total cost of the proposed research must be funded by monies or in-kind services provided by the college or university proposing the research project. Basic Research Grants are for one-year's duration unless otherwise agreed to by the Authority.

APPLICANT ELIGIBILITY

Full-time faculty members at colleges and universities located in Arkansas may submit applications to the Authority. Post-doctoral students are not considered qualified applicants. Each application must be submitted in accordance with procedures established at the institutions for submissions of requests for external support.

TYPES OF PROJECTS

The Authority funds projects that have a high probability of contributing to the enhancement and growth of science and technology in Arkansas. In addition, the Authority supports basic research that is concerned with the innovative generation of new knowledge. The Basic Grant Program of the Authority will not support market research for particular products or inventions.

SUBMISSION OF BASIC RESEARCH PROPOSALS

The Arkansas Science & Technology Authority solicits Basic Research Proposals two times during the fiscal year. The scheduled deadline dates for grant submission can be obtained either from your Office of Research & Sponsored Programs or by contacting the Authority Office at 501-324-9006. Proposals must be received before 4:30 PM on the scheduled deadline date.

Nine (9) copies of a proposal must be submitted. Each proposal must not exceed twenty-five pages, including cover page and appendices. Unless specifically stated in the guidelines, all portions of an application must be typed double spaced on standard letter-size paper, using a font size of 12 point, and have one inch margins. The Authority will not accept facsimile transmitted (fax) copies of proposals. The proposal should contain in order each of the following items:

1. A separate cover letter to the Arkansas Science & Technology Authority must accompany the research proposal from the Research & Sponsored Programs Office of the Principal Investigator's institution.

2. A CIP Code number (Appendix I) that clearly describes the field of research must be indicated on the Cover Sheet (Appendix II). Note: The Cover Sheet is the first page of the proposal.

3. The Cover Sheet must have a brief abstract that defines the exact nature and scope of the project. The abstract may be single-spaced if necessary.

4. The Cover Sheet must have the signatures of the appropriate university or college officials and the Principal Investigator.

5. Page two of the proposal begins with a statement of the specific objectives to be attained by the investigation.

6. A review of the current literature on the proposal topic is required. Include within the body of the literature review the various literature abbreviated citations, e.g., author, and year. A complete list of author, year, title, scientific journal, book, volume, and pages should occur immediately after the literature review section. When citations occur in the implementation plan, the listing of citations will occur after this section. Each citation must be single-spaced and must be double-spaced between individual items.

7. A clearly defined implementation plan for the accomplishment of the project is required. This must include a description of the proposed activities, experimental design and methods, timetable, and information detailing the availability of support facilities, equipment, and personnel necessary to attain the project's objectives.

8. A detailed budget is necessary for the project period that includes personnel, fringe benefits, equipment, supplies, and travel (Appendix III). Expenditures made more than 90 days prior to an award will not be approved. Verification of expenditures will be required. Note: the Authority will not fund indirect costs, but institutions may budget indirect in their matching costs at 50% of the approved NIH or NSF schedule. Budget changes will require prior approval by the Authority.

9. A statement detailing the source and amount of the required matching funds.

10. A statement of plans for future support of the research from federal and/or other external sources. This section must include the identification of the specific funding sources to be approached.

11. A description of the faculty personnel and their qualifications is required. Each faculty member of a project must be listed as Co-Principal Investigator(s). The person(s) principally responsible for the actual work must be listed as the Principal Investigator. Relevant information must include the academic credentials of key professionals, a list of recent publications in accepted professional journals, and a listing of external support. The publication and external support information can be single-spaced but must be double-spaced between individual citations. The list of external funding should include all investigators and the dates when awarded. Indicate any previous Authority funding and the award dates. This section should include a statement of each researcher's percentage effort on the proposed project.

12. A statement addressing the extent to that the proposed research will develop or build upon an established institutional base of research capability.

13. A statement addressing the potential of the proposed project to enhance the economy of Arkansas.

14. A statement that a final summary report will be submitted to the Authority within sixty days after the expiration of the award. A Final Summary Report Form is attached (Appendix IV).

15. One copy of a statement summarizing your research proposal is required. The summary must be written in non-scientific language that can be understood by an educated individual. The copy must be on a separate page from the proposal and include both the project title and the investigator's name. The description must be typed double-spaced on standard letter-size paper, using a font of 12 point, and have one inch margins. The length of the summary must be more than 200 words and not longer than one printed page. The Authority may disseminate the summary. Please be especially cognizant of correct syntax, spelling, and grammar when constructing the summary.

16. Final expenditure information must be provided by the grantee's financial officer. The officer's report must be on a separate page and included with the final report.

17. Include separate enclosures for Human Subjects and/or Recombinant DNA Certifications, if required by your institution.

PROJECT REVIEW CRITERIA

Each eligible proposal will be reviewed and evaluated by peer reviewers appointed by the Research Committee of the Authority's Board of Directors. List on a separate sheet of paper the names of individuals you do not want to review your research proposal. In addition, identify five nationally known individuals in your research area who could be contacted as possible peer reviewers of your research proposal.

The Research Committee is committed to recommending to the Board of Directors for funding only those proposals that have clear economic development potential and are ranked as being meritorious. The Authority will make every effort to complete the review process within ninety (90) days of proposal deadlines.

AWARDS

The final decision to commit funds to an applicant will be made by the Board of Directors of the Authority. The decision to fund will be based on information derived from the review process and its accompanying criteria and the Board's own interpretation of the information. The decision of the Board is final. Awards will be announced at the meeting of the Board of Directors following proposal review and evaluation.

ACKNOWLEDGMENTS

All publications or presentations that result from an award must acknowledge the financial assistance provided by the Arkansas Science & Technology Authority. Reprints or photocopies of publications related to the grant should be forwarded to the Authority.

MAILING INFORMATION

Proposals must be sent to the attention of Vice President Research, Arkansas Science & Technology Authority, 100 Main Street, Suite 450, Little Rock, Arkansas 72201. Receipt of the proposals will be acknowledged promptly and each institution will be advised of any action taken by the Authority.

Approved by the Board of Directors
on this 17th day of March, 2000

_____

Ron Roberts
Secretary
Board of Directors

CHECKLIST FOR PROPOSAL SUBMISSION

To assure that research proposals submitted to the Authority are complete, an administrative check of the following items must be made before mailing.

_____ Office of Research & Sponsored Programs letter.

_____ Project CIP Code category indicated on Cover Sheet (Appendix I).

_____ Completed Cover Sheet and a project summary (Appendix II).

_____ All required signatures (Principal Investigator, Co-Principal Investigator, and authorizing official) on Cover Sheet.

_____ Detailed description of the proposed research.

_____ Literature review followed by a detailed list of cited literature in the proposal.

_____ Implementation plan that includes a list or description of available facilities and major items of equipment to be used in the proposed research.

_____ Budget in requested format (Appendix III), including brief description and justification of major items of requested equipment.

_____ Source and amount of required matching funds.

_____ Future support statement and funding possibilities.

_____ Vita of the Principal Investigator and all Co-Principal Investigators.

_____ List all external funding and the date of the award. Indicate any previous Authority funding.

_____ A statement regarding the establishment of an institutional base of research capability.

_____ A statement of how the project will enhance the Arkansas economy.

_____ Statement concerning the Final Summary Report.

_____ Page limitation not exceeded.

_____ Nine (9) copies of the proposal. <u>The first copy is the original and signed document</u>.

_____ Human Subjects Certification if required (separate enclosure).

_____ Recombinant DNA Certification if required (separate enclosure).

_____ Non-scientific summary of the research proposal (separate enclosure)

APPENDIX I

CIP CODES

AGRICULTURE
- 01. Agricultural Business and Production
  - 01.01 Agricultural Business and Management
  - 01.02 Agricultural Mechanization
  - 01.03 Agricultural Production Workers and Managers
  - 01.04 Agricultural and Food Products Processing
  - 01.05 Agricultural Supplies and Related Services
  - 01.06 Horticulture Services Operations and Management
  - 01.07 International Agriculture
  - 01.99 Agricultural Business and Production, Other
- 02. Agricultural Sciences
  - 02.01 Agriculture/Agricultural Sciences
  - 02.02 Animal Sciences
  - 02.03 Food Sciences and Technology
  - 02.04 Plant Sciences
  - 02.05 Soil Sciences
  - 02.99 Agriculture/Agricultural Sciences, Other
- 03. Conservation and Renewable Natural Resources
  - 03.01 Natural Resources Conservation
  - 03.02 Natural Resources Management and Protective Services
  - 03.03 Fishing and Fisheries Sciences and Management
  - 03.04 Forest Production and Processing
  - 03.05 Forestry and Related Sciences
  - 03.06 Wildlife and Wildlands Management
  - 03.99 Conservation and Renewable Natural Resources, Other

COMMUNICATIONS
- 10. Communications Technologies
  - 10.01 Communications Technologies

COMPUTER AND INFORMATION SCIENCES
- 11. Computer and Information Sciences
  - 11.01 Computer and Information Sciences, General
  - 11.02 Computer Programming
  - 11.03 Data Processing Technology
  - 11.04 Information Sciences and Systems
  - 11.05 Computer Systems Analysis
  - 11.07 Computer Science
  - 11.99 Computer and Information Sciences, Other

ENGINEERING

14. Engineering
    - 14.01 Engineering, General
    - 14.02 Aerospace, Aeronautical and Astronautical Engineering
    - 14.03 Agricultural Engineering
    - 14.04 Architectural Engineering
    - 14.05 Bioengineering and Biomedical Engineering
    - 14.06 Ceramic Sciences and Engineering
    - 14.07 Chemical Engineering
    - 14.08 Civil Engineering
    - 14.09 Computer Engineering
    - 14.10 Electrical, Electronics and Communications Engineering
    - 14.11 Engineering Mechanics
    - 14.12 Engineering Physics
    - 14.13 Engineering Science
    - 14.14 Environmental/Environmental Health Engineering
    - 14.15 Geological Engineering
    - 14.16 Geophysical Engineering
    - 14.17 Industrial/Manufacturing Engineering
    - 14.18 Materials Engineering
    - 14.19 Mechanical Engineering
    - 14.20 Metallurgical Engineering
    - 14.21 Mining and Mineral Engineering
    - 14.22 Naval Architecture and Marine Engineering
    - 14.23 Nuclear Engineering
    - 14.24 Ocean Engineering
    - 14.25 Petroleum Engineering
    - 14.27 Systems Engineering
    - 14.28 Textile Sciences and Engineering
    - 14.29 Engineering Design
    - 14.30 Engineering/Industrial Management
    - 14.31 Materials Science
    - 14.32 Polymer/Plastics Engineering
    - 14.99 Engineering, Other

15. Engineering-related Technologies
    - 15.01 Architectural Engineering Technology
    - 15.02 Civil Engineering/Civil Technology
    - 15.03 Electrical and Electronic Engineering-Related Technology

15.04 Electromechanical Instrumentation and Maintenance Technology
15.05 Environmental Control Technologies
15.06 Industrial Production Technologies
15.07 Quality Control and Safety Technologies
15.08 Mechanical Engineering-Related Technologies
15.09 Mining and Petroleum Technologies

15. Engineering-related Technologies (continued)

15.10 Construction/Building Technology
15.11 Miscellaneous Engineering-Related Technologies
15.99 Engineering-Related Technologies, Other

HEALTH

17. Allied Health

17.01 Dental Services
17.02 Diagnostic and Treatment Services
17.03 Medical Laboratory Services
17.04 Mental Health and Human Services
17.05 Miscellaneous Allied Health Services
17.06 Nursing-Related Services
17.07 Ophthalmic Services
17.08 Rehabilitation Services
17.09 Allied Health, Other

18. Health Science

18.01 Audiology and Speech Pathology
18.02 Basic Clinical Health Sciences
18.03 Chiropractic
18.04 Dentistry
18.05 Emergency/Disaster Science
18.06 Epidemiology
18.07 Health Science Administration
18.08 Hematology
18.09 Medical Laboratory
18.10 Medicine
18.11 Nursing
18.12 Optometry
18.13 Osteopathic Medicine
18.14 Pharmacy
18.15 Podiatry
18.16 Population and Family Planning
18.21 Prosectorial Science
18.22 Public Health Science
18.23 Toxicology

18.24 Veterinary Medicine
18.25 Health Science, Other

HOME ECONOMICS
19. Home Economics
19.05 Foods and Nutrition Studies

BIOLOGICAL SCIENCES/LIFE SCIENCES
26. Biological Sciences/Life Sciences
26.01 Biology, General
26.02 Biochemistry and Biophysics
26.03 Botany
26.04 Cell and Molecular Biology
26.05 Microbiology/Bacteriology
26.06 Miscellaneous Biological Specializations
26.07 Zoology
26.99 Biological Sciences/Life Sciences, Other

MATHEMATICS
27. Mathematics
27.01 Mathematics
27.03 Applied Mathematics
27.04 Pure Mathematics
27.05 Mathematical Statistics
27.99 Mathematics, Other

MULTI/INTERDISCIPLINARY STUDIES
30. Multi/Interdisciplinary Studies
30.01 Biological and Physical Sciences
30.03 Engineering and Other Disciplines
30.06 Systems Science and Theory
30.08 Mathematics and Computer Science
30.10 Biopsychology
30.99 Multi/Interdisciplinary Studies, Other

PHYSICAL SCIENCES
40. Physical Sciences
40.01 Physical Sciences, General
40.02 Astronomy
40.03 Astrophysics
40.04 Atmospheric Sciences and Meteorology
40.05 Chemistry

40.06 Geological and Related Sciences
40.07 Miscellaneous Physical Sciences
40.08 Physics
40.09 Planetary Science
40.99 Physical Sciences, Other

41. Science Technologies
41.01 Biological Technology
41.02 Nuclear and Industrial Radiologic Technologies
41.03 Physical Science Technologies
41.99 Science Technologies, Other

PSYCHOLOGY

42. Psychology
42.01 Psychology
42.0101 Psychology, General
42.02 Clinical Psychology
42.03 Cognitive Psychology and Psycholinguistics
42.04 Community Psychology
42.06 Counseling Psychology
42.07 Developmental and Child Psychology
42.08 Experimental Psychology
42.09 Industrial and Organizational Psychology
42.10 Personality Psychology
42.11 Physiological Psychology/Psychobiology
42.12 Psycholinguistics
42.13 Psychometrics
42.14 Psychopharmacology
42.15 Quantitative Psychology
42.16 Social Psychology
42.99 Psychology, Other

APPENDIX II

CIP CODE _____

ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY
COVER SHEET FOR BASIC RESEARCH PROPOSALS

1. Name of Institution _____

2. Principal Investigator _____

3. Mailing Address and Telephone Number for:

Institution Contract Office	Principal Investigator	Co-Principal Investigator
_____	_____	_____
_____	_____	_____
_____	_____	_____
( )_____	( )_____	( )_____
E-mail: _____	E-mail: _____	E-mail: _____

4. Title of Project _____

5. Requested Amount: $ _____

6. Project Summary:

_____	_____
Authorizing Official	Principal Investigator
Institution: _____	Department: _____
Date:_____	Date:_____

Signature on the application denotes that these individuals agree that the Principal Investigator is a full-time faculty member. In addition, that the signed individuals have read and understand the rules and guidelines governing the Basic Research Grants Program and agree to the award conditions.

APPENDIX III

ORGANIZATION			
PROJECT DIRECTOR			
SALARIES, WAGES, AND FRINGE BENEFITS	ASTA	MATCH	TOTAL
TRAVEL			
MATERIALS AND SUPPLIES			
EQUIPMENT			
CONTRACTUAL SERVICES, OTHER			
TOTAL DIRECT COSTS			
INDIRECT COSTS			
TOTAL COSTS			

INSTRUCTIONS FOR APPENDIX III SUMMARY PROPOSAL

BUDGET

I. GENERAL

Completion of this summary does not eliminate the need to document and justify fully the amounts requested in each category. Such documentation must be provided on additional page(s) immediately following the budget in the proposal and must be identified by line item. The documentation page(s) must be titled "Budget Explanation Page."

Revised budgets must be signed and dated by the authorizing organizational representative, principal investigator, and submitted with the original and two copies.

II. BUDGET LINE ITEMS

Matching Funds. In the space under "Match," specify the source of the matching funds.

Salaries, Wages, and Fringe Benefits. On the Budget Explanation Page, list individually all senior personnel and rates of pay.

Travel. Address the type, extent of travel, and its relation to the project. Itemize by destination, cost, and justify travel outside of the United States and its possessions and Canada. Include dates of foreign meetings or visits. Fare allowances are limited to round-trip, economy rates.

Materials and Supplies. Indicate types required and estimated costs.

Equipment. While items exceeding $500 and two years' useful life are defined as permanent equipment, it is only necessary to list item and dollar amount for each item exceeding $1000. Fully justify.

Contractual Services. Indicate the name, daily compensation (limited to $245/day), estimated days of service, and justify.

Other. Itemize and justify. Include computer equipment, leasing, publication costs, etc.

Indirect Costs. The Authority will not fund indirect costs on Basic Research Grants.

BUDGET FORM DEFINITIONS & EXPLANATORY REMARKS

The "personnel categories" are defined as follows:

Senior Personnel

"Principal Investigator(s)" are individual(s) so designated by the grantee institution.

A "Faculty Associate" (faculty member) is an individual other than the Principal Investigator who is considered by the performing institution to be a member of its faculty or who holds an appointment as a faculty member at another institution, and who will participate in the project being supported.

Other Personnel

A "Postdoctoral Associate" is an individual who had received a Ph.D., M.D., D. Sc., or equivalent degree less than five years ago, who is not a member of the faculty of the performing institution, and who is not reported under Senior Personnel above.

"Other Professional" is a person who may or may not hold a doctoral degree or its equivalent, who is considered professional and is not reported as a Principal Investigator, faculty associate, post-doctoral associate or student. Examples of persons included in this category are doctoral associates not reported above, professional technicians, mathematicians, physicians, veterinarians, system experts, computer programmers, and design engineers.

A "Graduate Student" (Graduate Assistant) is a part-time or full-time student working on the project in a research capacity who holds at least a bachelor's degree or its equivalent and is enrolled in a degree program leading to an advanced degree.

An "Undergraduate Student" is a student who is enrolled in a degree program (part-time or full-time) leading to a bachelor's degree.

"Support Personnel" include persons working on the project in a non-research capacity, such as secretaries, clerk-typists, drafters, animal caretakers, electricians, and custodial personnel, regardless of whether they hold a degree or are involved in degree work.

APPENDIX IV

INSTRUCTIONS FOR THE FINAL PROJECT REPORT

The final project report is due within sixty days after the expiration of the award. Two (2) copies must be submitted to:

Vice President Research
Arkansas Science & Technology Authority
100 Main Street, Suite 450
Little Rock, AR 72201

Instructions for Part I:

The identification items must be the same as on the award documents.

Instructions for Part II:

The final summary (not less than 200 words nor more than one printed page) must be self-contained and intelligible to a scientifically literate reader. Without restating the project title, it must begin with a topic sentence stating the project's major thesis. The summary must include, if pertinent to the project being described, the following items:

1. The primary objectives and scope of the project.

2. The techniques or approaches used only to the degree necessary for comprehension.

3. The findings and implications stated as concisely and informatively as possible.

4. The potential contribution of the project results to the economic development of Arkansas.

The Authority may disseminate the project summary. Authors should also know that the summary may be used to answer inquiries by nonscientists as to the nature and significance of the research. Scientific jargon and abbreviations should be avoided.